GEL'FGAT, Ya.A.

GEL'FGAT, Ya.A., redaktor.

[redacted] for the selection of sample borings] Apparat dlia otbora orientirovannogo kerna. Moskva, 1947. 17 p. (MIRA 8:4)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i organizatsii truda v neftyanoy promyshlennosti. Byuro tekhniko-ekonomicheskoy informatsii.
(Oil well drilling) (Borings)

GEL'FGAT, Ya.A.

ZALKIN, S.L.; TAGIYEV, M.I.; GEL'FGAT, Ya.A., redaktor; REZNIK, A.A., redaktor; TITSKAYA, B.F., redaktor; POKROVSKAYA, A.S., tekhnicheskiy redaktor.

[Double shaft drilling method for petroleum and gas well] Dvukhstvol'noe burenie neftianykh i gazovykh skvazhin. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 181 p. (MLRA 7:7)
(Petroleum--Well-boring) (Gas, Natural)

GEL'FGAT, Ya.A.

BARSHAY, Georgiy Sergeyevich; BUYANOVSKIY, Naum Il'ich; GEL'FGAT, Ya.A., redaktor; PETROVA, Ye.A., vedushchiy redaktor; POZDEYEVA, A.S., tekhnicheskiy redaktor

[The technique of rapid turbodrilling] Tekhnika skorostnogo turbinnogo bureniia. Moskva, Gos.nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956. 333 p. (MIRA 9:8)
(Turbodrills)

GELFGAT, Y. A., IOANNESYAN, R. A., TREBIN, F. A., GUSMAN, M. I., OSTROVSKIY, A. P., TAGIYEV, E. I., TITKOV, N. I., SHMAREV, A. T., MININ, A. A., and SHASHIN, V. D.,

"Progress of Turbodrilling and Studying New Methods of Drilling Wells in the USSR."

(to be) Report submitted at the Fifth World Petroleum Congress, 30 May - 5 June 1959. New York City.

BARSHAY, Georgiy Sergeyevich; BUYANOVSKIY, Naum Il'ich; GEL'FGAT, Ya.A., red.; PETROVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Theory and practice of turbodrilling] Teoriia i praktika turbinnogo bureniia. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gornotoplivnoi lit-ry, 1961. 413 p. (MIRA 14:8)
(Turbodrills)

TIMOFEYEV, N.S.; GEL'FGAT, Ya.A.

Problems in drilling deep wells. Neft. khoz. 40 no.1:7-12 Ja '62. (MIRA 15:2)
(Oil well drilling)

BARSHAY, G.S.; BUYANOVSKIY, N.I.; GEL'FGAT, Ya.A.; GRYZOV, I.S.

Test ratings of turbodrilling without raising pipes. Neft. khoz. 40 no.6:11-18 Je '62. (MIRA 15:6)
(Turbodrills) (Oil well drilling)

ORLOV, A.V.; GEL'FGAT, Ya.A.; CHERKAYEV, V.V.; KECHEKEZYAN, A.N.

Structures of extra-deep wells. Trudy VNIIBT no.9:3-13 '63.
(MIRA 17:9)

GEL'FGAT, Ya.A.; ORLOV, A.V.; FINKEL'SHTEYN, G.E.; CHERKAYEV, V.V.

Establishing certain empirical dependence of bit-operation characteristics on the parameters of drilling practices. Trudy VNIIBT no.9:13-23 '63. (MIRA 17:9)

GRIGOR'YEVA, Ya.A.; GRIAZOV, A.V.; PISAR'ZHEVSKIY, G.M.; SHABUTIN, A.N.; [illegible] N.N.

Brief review of the results of drilling in the test-model wells in the Karadag-Dambe area. Trudy VNIIBT no.14:3-32 '65 (MIRA 18:5)

VOL'FSON, V.I.; GEL'FGAT, Ya.A.; ORLOV, A.V.; CHERVONSKIY, Ye.G. [deceased]

Results of drilling wells with No.7 bits. Trudy VNIIBT no.14:33-43 '65. (MIRA 18:5)

GEL'FGAT, YE. YA. Cand Med Sci

Disstertation: "Perforated Ulcer of the Stomach and Duodendum."

18 Apr 49

First Moscow Order Of Lenin Medical Inst

SO Vecheryaya Moskva
Sum 71

L 11156-67 EWP(m)/EWT(l)/EWT(m)/EWP(w) IJP(c) EM/DJ
ACC NR: AP6034575 SOURCE CODE: UR/0382/66/000/003/0003/0021

AUTHOR: Branover, G. G.; Gel'fgat, Yu. M.; Tsinober, A. B. 75

ORG: none

TITLE: Turbulent magnetohydrodynamic flows in prismatic and cylindrical tubes

SOURCE: Magnitnaya gidrodinamika, no. 3, 1966, 3-21

TOPIC TAGS: turbulent flow, MHD flow, transverse magnetic field, drag coefficient, stress distribution

ABSTRACT: The authors review the present state of experimental and semi-empirical investigations of turbulent MHD flows in prismatic and cylindrical tubes. Experimental investigations of flow in a tube with a slit-like cross section placed lengthwise in the direction of the transverse magnetic field as well as a semi-empirical analysis of two-dimensional flows in the transverse field are discussed. For these two-dimensional flows several variants of the semiempirical theory are proposed for reference functions permitting the calculation of the drag coefficient, the average speed curve and the distribution of stress of the turbulent friction. Orig. art. has: 5 figures and 21 formulas. [Based on authors' abstract]

SUB CODE: 20/SUBM DATE: 22Apr66/ORIG REF: 032/OTH REF: 052/

Card 1/1 mlc UDC: 538.4

TIKHONOV, Aleksandr Porfir'yevich; ZASLAVSKIY, Moisey Abramovich; BESPALOV, K.I., kand.tekhn.nauk, retsenzent; GEL'FGAT, Z.I., inzh., retsenzent; DASHEVSKIY, T.B., kand.tekhn.nauk, red.; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Technology of machinery manufacture] Tekhnologiia mashinostroeniia. Moskva, Mashgiz, 1963. 532 p. (MIRA 16:6)
(Machinery industry)

GEL'FMAN, A.; AMENITSKIY, B.

"Rigips" plaster board. Arkhit.i stroi Len. no.1:47-48 '49.
(MLRA 7:5)
(Plaster board)

CHERNOZUBOV, S.; GEL'FMAN, A.; ARUTINOV, I.

Making blocks from bricks constitutes one part of "large block" construction. Stroi. mat., izdel. i konstr. 1 no.10:10-13 O '55. (MLRA 9:1)

1.Direktor instituta "Rosstromproyekt"(for Chernozubov).
2.Nachal'nik Leningradskogo otdeleniya instituta (for Gel'fman).
3.Glavnyy tekhnolog Leningradskogo otdeleniya (for Arutinov).
(Building blocks)

GEL'MAN, A. I.

27774. GEL'MAN, A. I.--proizvodstvo malobe tonnykh tsementnykh stroitel'nykh materialov tipa "siporeks". Mest. Stroit. materialy, 1.49 vyp. 9, S. 6-9

SO: Letopis' Zhurnal'nykh Statey, Vol 37, 1949.

GEL'FMAN, A.I.; MISHNAYEVSKIY, N.E.; ARUTINOV, I.B.; MEL'NIKOV, O.N.

Industrial base of pipe production for heating systems. Stroi.mat. 10 no.8:21-22 Ag '64. (MIRA 17:12)

1. Direktor instituta Lenproyektniims (for Gel'fman). 2. Glavnyy inzh. tresta No.103 Glavnogo upravleniya po zhilishchnomu, grazhdanskomu i promyshlennomu stroitel'stu Leningradskogo gorodskogo ispolnitel'nogo komiteta (for Mel'nikov).

GEL'FMAN, A. Ya.; GRANOVSKIY, G. L.; KHEYFETS, L. Ya.

Simple radiographic method for dactyloscopic investigations.
Atom. energ. 17 no.1:71 Jl '64. (MIRA 17:7)

GEL'FMAN, A.Ya.

KRASNOV, M.L., professor.; KRICHEVSKAYA, Ye.I., kandidat meditsinskikh nauk.; SHAKHNOVICH, S.I., kandidat meditsinskikh nauk.,; SHUL'PINA, N.B. kandidat meditsinskikh nauk.,; GEL'FMAN, A.Ya., vrach.

Dicoumarin in a thromboembolic syndrome of the retinal blood vessels. Vest. oft. 68 no.1:3-8 Ja-F '56 (MLRA 9:5)

1. Iz kafedry glaznykh bolezney TSentral'nogo instituta usovershenstvovaniya vrachey (zav.-prof. M.L. Krasnov) i Moskovskoy glaznoy klinicheskoy bol'nitsy (glav. vrach-I.A. Lyubchenko)
(RETINA--BLOOD SUPPLY)

GEL'FMAN, A.Ya.; GLUSHCHENKO, V.G.

Apparatus for interstitial and intracavity injection of colloidal radiogold solution. Vest.rent.i rad. 34 no.2:75-76 Mr-Ap '59. (MIRA 13:4)

1. Iz izotopnoy laboratorii (zav. - dotsent A.I. Il'yevich) Khar'kovskogo instituta meditsinskoy radiologii (direktor - dotsent Ye. A. Bazlov).

(GOLD, radioactive,
appar. for interstitial & intra-cavity admin. (Rus))

GEL'FMAN, A.Ya.; VASYURENKO, V.V.

Apparatus for the measurement of solutions of radioactive isotopes. Vest.rent. i rad. 34 no.4:68-69 Jl-Ag '59. (MIRA 12:12)

1. Iz izotopnoy laboratorii (zav. - dotsent A.I. Il'yevich) Khar'kovskogo instituta meditsinskoy radiologii (dir. - dotsent Ye.A. Bazlov).

(RADIOMETRY equipment & supply)

GEL'FMAN, A.Ya.; LIZOGUB, N.P.

To the editors of "Vestnik rentgenologii i radiologii." Vest. rent. i rad. 36 no. 1:77-78 Ja-F '61. (MIRA 14:4)
(RADIOLOGY, MEDICAL)

GEL'FMAN, A.Ya.; KALMYKOV, L.Z.

Determination of radioactive cesium by ferrocyanide. Radiokhimia 4 no.1:107-110 '62. (MIRA 15:4)
(Cesium--Isotopes) (Ferrocyanides)

GEL'FMAN, A.Ya.; KVYATKOVSKAYA, Ye.F.; LUZAN, R.G.; SKOROBOGATOV, B.S.

Some electrophysical properties of polyvinyl alcohol and its chelate compounds. Vysokom. soed. 5 no.10:1534-1537 O '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

L 12414-63 EWP(j)/EPF(c)/EWT(m)/ES(s)-2/BDS AFFTC/ASD/ESD-3/SSD
Pc-4/Pr-4/Pt-4 RM/WW

ACCESSION NR: AP3001408 S/0020/63/150/004/0833/0835

AUTHOR: Gel'fman, A. Ya.; Bidnaya, D. S.; Buravleva, M. G.; Luzan, R. G.

TITLE: Intermolecular structure and some electrophysical properties of polyvinyl alcohol

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 833-835

TOPIC TAGS: polyvinyl alcohol, electrochemical properties

ABSTRACT: Attempts have been made to show correlation between the degree of alignment of polymeric molecules and the electrophysical properties of the polymer. Films of polyvinyl alcohol obtained by the usual method from water solution were used. It was found that there is no difference between the DELTA E for the films with various degrees of crystallinity, and also the molecular orientation has no effect on the value of DELTA E. Thus, according to the existing classification, polyvinyl alcohol can be included into organic semiconductors. Orig. art. has: 1 table, 2 figures, and 1 graph.

ASSOCIATION: All-Union Scientific-Research Inst. for Monocrystals and Ultrapure Chemical Substances

Card 1/1

L 22217-65 EWT(m)/EPF(c)/T/EWP(j)/EPR Pc-4/Pr-4/Ps-4 ASDA-5/Pa-4/ASDM-3
AS-P-2/AFETR WW/RM

ACCESSION NR: AP4012915 S/0020/64/154/004/0894/0896

AUTHOR: Gol'fman, A. Ya.; Bidnaya, D. S.; Sigalova, L. V.; Buravleva, M. G.; Koba, V. S.

TITLE: Electric conductivity and conjugated double bonds in pyrolysis products of polyvinyl alcohol

SOURCE: AN SSSR. Doklady, v. 154, no. 4, 1964, 894-896, and top half of insert facing page 894

TOPIC TAGS: polyvinyl alcohol, pyrolysis, pyrolysis product , electric conductivity, polymer pyrolysis product, polymer, conjugated double bond, crystallinity, amorphous structure, electric resistance, activation energy, conjugated double bond system, conjugated bond

ABSTRACT: The IR-spectra and x-ray patterns of the pyrolysis products of polyvinyl alcohol were studied to test the hypothesis that the increased electric conductivity and lowered activation energy of pyrolysis products of polymers is associated with the formation of a system of conjugated double bonds. Pyrolysis of polyvinyl alcohol was conducted in a slow stream of air, nitrogen, or argon for 3

Card 1/2

L 22217-65

ACCESSION NR: AP4012975

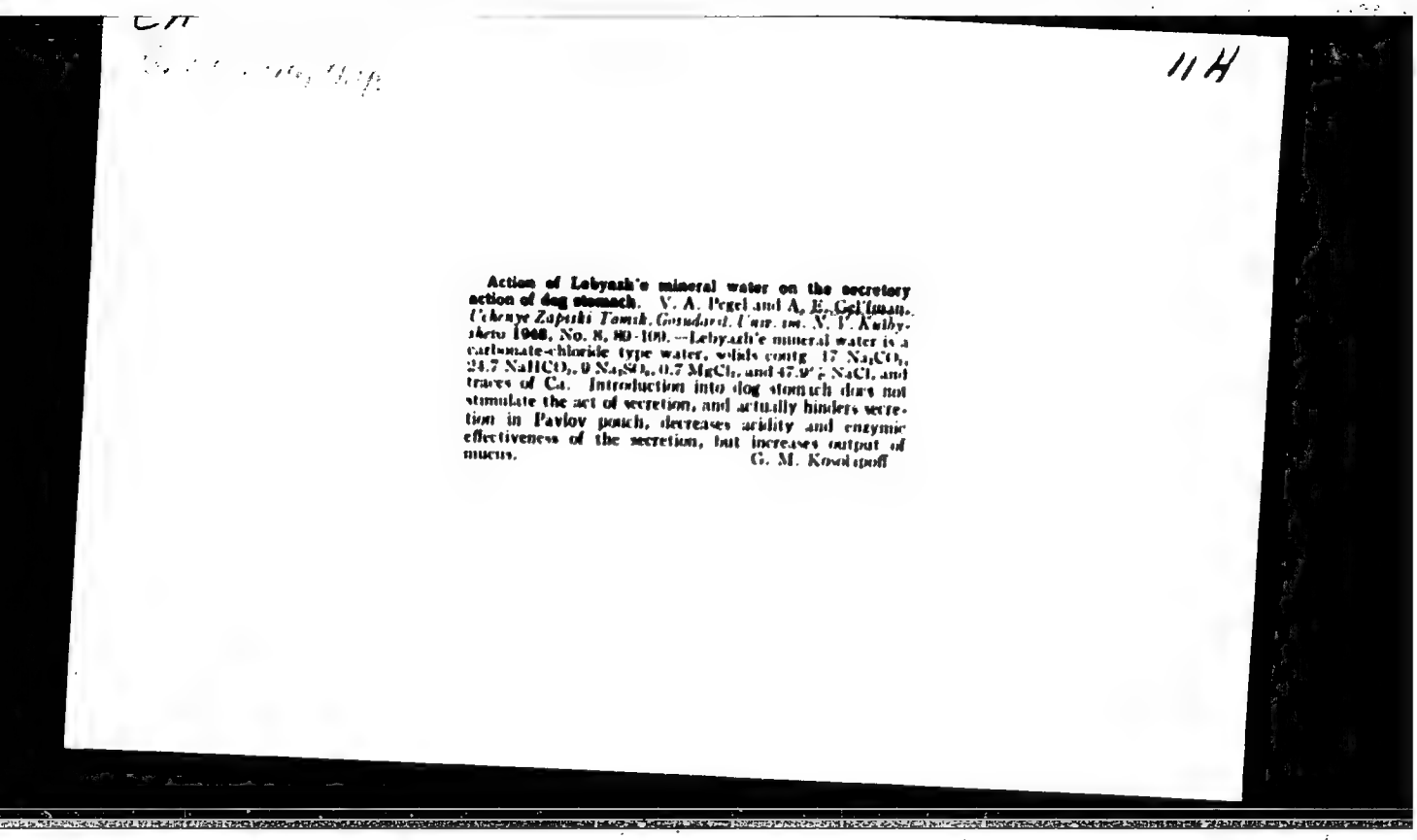
hours at 200--800C. It was found that polyvinyl alcohol undergoes a change in molecular structure at 300C. The maximum concentration of aliphatic conjugated double bonds, minimum crystallinity, and maximum electric conductivity appear both in air and inert gas at 300C. Pyrolysis at higher temperatures increases conductivity markedly and lowers activation energy, apparently as a result of the formation of "carbon structures" (segments of large, highly unsaturated aromatic molecules) and an increase in their number rather than because of an increase in the number of double bonds. The maximum resistivity and activation energy of 300C pyrolysis products is apparently associated with the complete breakdown of the original polyvinyl alcohol and disappearance of hydrogen bonding before any carbon structures are formed. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv (All-Union Scientific Research Institute of Single Crystals, Scintillization Materials, and High Purity Chemical Substances)

SUBMITTED: 26Sep63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 005

Card 2/2



11H

Action of Lebyazh'e mineral water on the secretory action of dog stomach. V. A. Pegel and A. E. Gel'fman. *Uchenye Zapiski Tomsk. Gosudarst. Univ. im. V. V. Kuibysheva* **1948**, No. 8, 99-109.—Lebyazh'e mineral water is a carbonate-chloride type water, which contg. 17 Na_2CO_3, 24.7 $NaHCO_3$, 9 Na_2SO_4, 0.7 $MgCl_2$, and 47.9% NaCl, and traces of Ca. Introduction into dog stomach does not stimulate the act of secretion, and actually hinders secretion in Pavlov pouch, decreases acidity and enzymic effectiveness of the secretion, but increases output of mucus.

G. M. Kosolapoff

GEL'FMAN, A. Ye.

32737. Vliyaniye pchyelinogo meda na sekre torunyu deyatel'nostv zheludka, V. SB: Nervno-gumoral'nyye regulyatsii deyatel'nosti pishchevarit. Apparata. M., 1949, s. 69-86—bibliogr. 7 nazv.

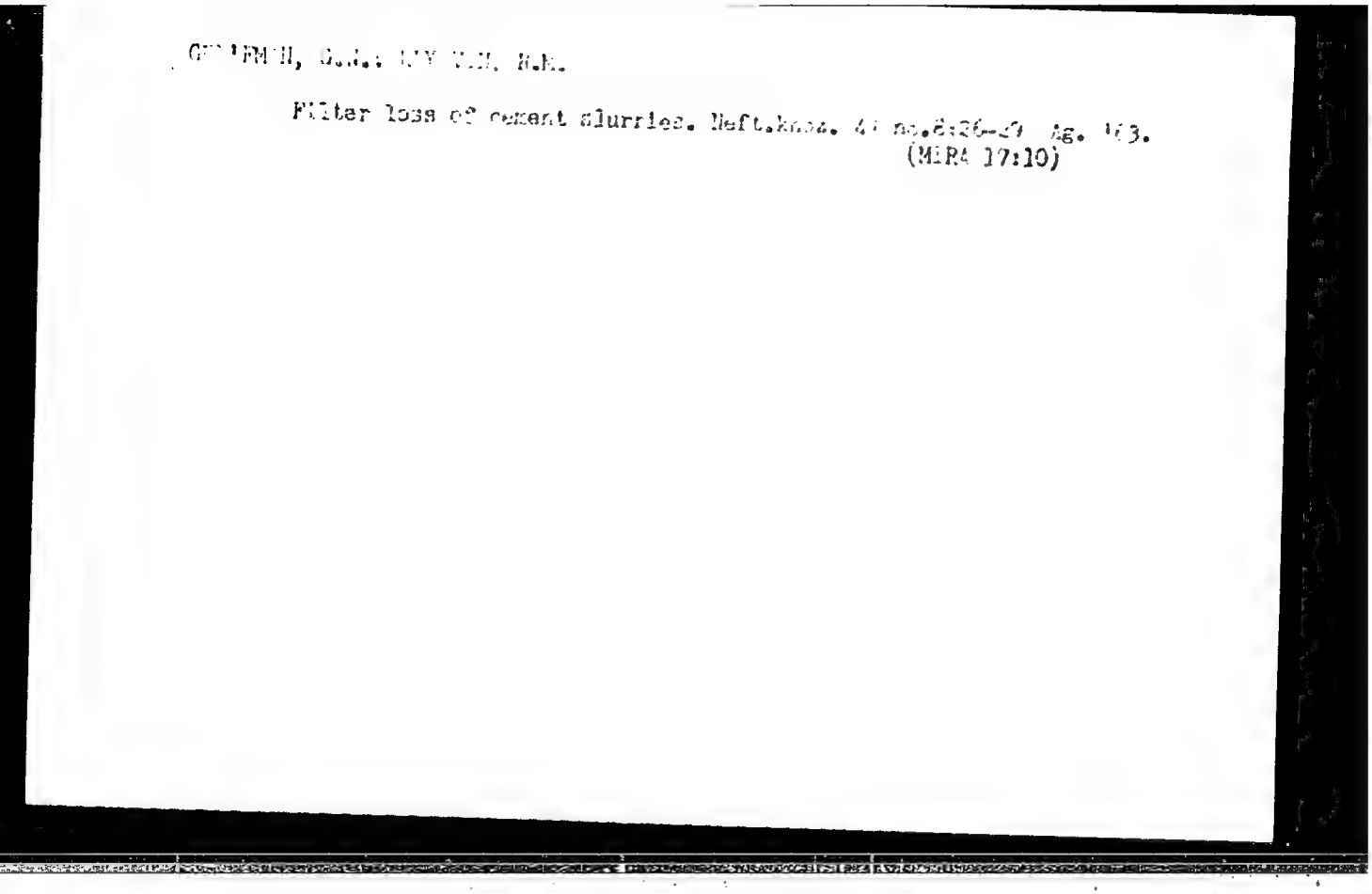
SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

ANDREYEV, N.N.; GEL'FMAN, O.N.

Reduce the time of cement hardening. Neft.khoz. 34 no.5:9-13 My '56.
(MLRA 9:8)
(Oil well drilling--Equipment and supplies)

GEL'FMAN, G. N.

Cand Tech Sci - (diss) "Studies of the physico-mechanical properties of cement stone for the conditions of drilling wells in petroleum deposits of the eastern rayons of the USSR." Moscow, 1961. 17 pp; (Ufa Petroleum Scientific Research Inst of the Bashkir Sovnarkhoz, Inst of Geology and Development of Flammable Mineral Resources of the Academy of Sciences USSR); 200 copies; price not given; (KL, 7-61 sup, 234)



GRIFFITH, G.A.; LYY V.N., red.

Filter loss of cement slurries. Neft.khoz. 41 no.8:26-29 Ag. '63.
(MIRA 17:10)

KUVYKIN, Aleksandr Stepanovich; GEL'FMAN, Gari Nisonovich; LEBEDEV, Yevgeniy Alekseyevich

[Using high-strength gypsum in drilling] Primenenie vysokoprochnogo gipsa v burenii. Moskva, Nedra, 1964. 122 p. (MIRA 17:5)

GEL'MAN, G[illegible] Nikolayevich; DAL'YUSHEVSKIY, [illegible]; [illegible]; ZHELNIKOV, N.V., st. inzh., red.; BUSHMAKIN, A.F., st. inzh., red.; OSTASHEVSKAYA, G.A., red.

[Corrosion of cement stone in oil wells] Korroziia tsementnogo kamnia v neftianykh skvazhinakh. Ufa, Izd-vo "Bashkortostan," 196[illegible]. [illegible] p. (MIRA 18:10)

1. Otdel bureniya Ob"yedineniya Bashkirskoy neftyanoy promyshlennosti (for Khlebnikov). 2. Tekhnicheskiy otdel Ob"yedineniya Bashkirskoy neftyanoy promyshlennosti (for Bushmakin).

GEL'FMAN, I.M., inzhener.

Using standard precast reinforced concrete girders in large dimension sloping bridges. Avt. dor. 19 no.7:8-9 Jl '56. (MLRA 9:10)

(Bridges, Concrete)

GEL'FMAN, I.M., inzhener.

Standardizing precast reinforced concrete bridge spans. Avt. dor. 20 no.2:19-20 F '57. (MLRA 10:4)
(Bridges, Concrete)

GEL'FMAN, I. I.

PHASE I BOOK EXPLOITATION SOV/5510

Drozd, Yakov Ivanovich, Nikolay Alekseyevich Tkachenko, Il'ya Markovich Gel'fman, Vladimir Iosifovich Volynskiy

Opyt proyektirovaniya i stroitel'stva zhelezobetonnykh predvaritel'no napryazhennykh mostov v Belorussii (Experience in the Design and Construction of Prestressed Reinforced Concrete Bridges in Belorussia) Minsk, Redizdat otdel BPI im. I. V. Stalina, 1960. 281 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniya BSSR. Belorusskiy politekhnicheskiy institut imeni I. V. Stalina.

Ed. (Title page): Ya. I. Drozd, Honored Scientist and Technologist BSSR; Ed. of Publishing House: N.V. Kapranova; Tech. Ed.: P.T. Kuz'menok.

PURPOSE: This book is intended for designing engineers and manufacturers of prestressed bridge components.

Card 1/8

GEL'FMAN, I.V.

Practice in clearing the district of dodder. Zashch. rast. ot vred. i bol. 7 no.3:54-55 Mr '62. (MIRA 15:11)

1. Starshiy agronom-inspektor Ferganskoy gosudarstvennoy inspektsii po karantinu rasteniy.
(Bagdadskiy District--Dodder)

SENDEROV, I.K.; CEL'FMAN, I.V.

Quarantine measures for the control of the Comstock mealybug. Zashch. rast. ot vred. i bol. 8 no.10:50 O '63. (MIRA 17:6)

1. Nachal'nik karantinnoy inspektsii Fergansкoy oblasti (for Senderov).

GRINBERG, A.A., akademik; GEL'FMAN, M.I.

Stability of complex compounds of divalent platinum. Dokl.AN SSSR 133 no.5:1081-1083 Ag '60. (MIRA 13:8)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Plantinum compounds)

GIL'DENGERSHEL', Kh.I.; GEL'FMAN, M.I.

Method of synthesising potassium hexabromoplatinate. Zhur. prikl. khim. 33 no.12:2773-2774 D '60. (MIRA 14:1)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.
(Potassium bromoplatinate)

GRINBERG, A.A., akademik; GEL'FMAN, M.I.; IN'KOVA, Ye.N.; SHAGISULTANOVA, G.A.

Presence of exchange between irradiated metallic platinum and complex ions of divalent platinum in aqueous solutions. Dokl. AN SSSR 137 no.3:597-598 Mr '61. (MIRA 14:2)

(Platinum—Isotopes)

GRINBERG, A.A.; GEL'FMAN, M.I.

Interaction of complex compounds of the same metal in the same oxidation state. Zhur.neorg.khim. 7 no.5:992-996 My '62.
(MIRA 15:7)

(Complex compounds)

GEL'FMAN, M. I.

Dissertation defended for the degree of Candidate of Chemical Sciences at the Institute of General and Inorganic Chemistry imeni N. S. Kurnakov: in 1962:

"Stability of Complex Compounds of Bivalent Platinum in Aqueous Solutions."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

GRINBERG, A.A.; SHAGISULTANOVA, G.A.; GEL'FMAN, M.I.

Instability constants of platinum complexes. Izv. AN SSSR. Otd.khim. nauk no.4:585-596 Ap '63. (MIRA 16:3)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Platinum compounds)

GRINBERG, A.A., akademik; GEL'FMAN, M.I.

Stability of complex platinous compounds of the diacidodiamine type. Dokl. AN SSSR 149 no.6:1328-1331 Ap '63. (MIRA 16:7)
(Platinum compounds) (Amines)

GRINBERG, A.A., akademik; GEL'FMAN, M.I.

Stability of complex compounds of bivalent platinum of the monoamine and triamine types. Dokl. AN SSSR 150 no.2:305-308 My '63. (MIRA 16:5)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Platinum compounds) (Amino group)

GRINBERG, A.A., akademik; KISELEVA, N.V.; GEL'FMAN, M.I.

Instability constants of palladium complexes. Compounds of the $K_2[PdX_4]$ type. Dokl. AN SSSR 153 no.6:1327-1329 D '63. (MIRA 17:1)

GRINBERG, A.A., akademik; GIL'MAN, M.I.

Separation of isomeric diamines of bivalent platinum and of products of their reaction with thiourea. Dokl. AN SSSR 161 no.3 601-602 Mr '65. (MIRA 18:4)

L 23110-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6009488 UR/0020/66/167/001/0099/0101

AUTHOR: Grinberg,A.A.(Academician); Babitskiy,B.D.; Bezhan, I.P.; Varshavskiy, Yu.S.; Gel'fman,M.I.; Kiseleva,N.V.; Kormer,V.A.; Smolenskaya, D.B.; Chesnokova, N.N.

ORG: All-Union Scientific Research Institute for Synthetic Rubber im. S.V.Lebedev(Vsesoyuzn y nauchno-issledovatel'skiy institut sinteticheskogo au huka); Institute of General and Inorganic Chemistry im.N.S. Kurnakov of the AN SSSR(Institut obshchey i neorganicheskoy khimii AN SSSR)

TITLE: The effect of the composition of rhodium(III) complexes on their catalytic activity in the process of stereospecific polymerization of butadiene-1,3 in an aqueous medium

SOURCE: AN SSSR. Doklady, v.167, no.1, 1966, 99-101

TOPIC TAGS: rhodium compound, polymerization catalyst, butadiene, aqueous solution

ABSTRACT: The complexes to be investigated, synthesized by known methods, were analyzed for their rhodium and halide content. The polymerization was carried out by methods described in a previous article. A table shows results of using fifteen different rhodium complexes as catalysts in the polymerization of butadiene in an aqueous emulsion at 50 and 70°. It follows from these results that the gradual replacement

Card 1/2 UDC: 66.095.264:678.672:661.897

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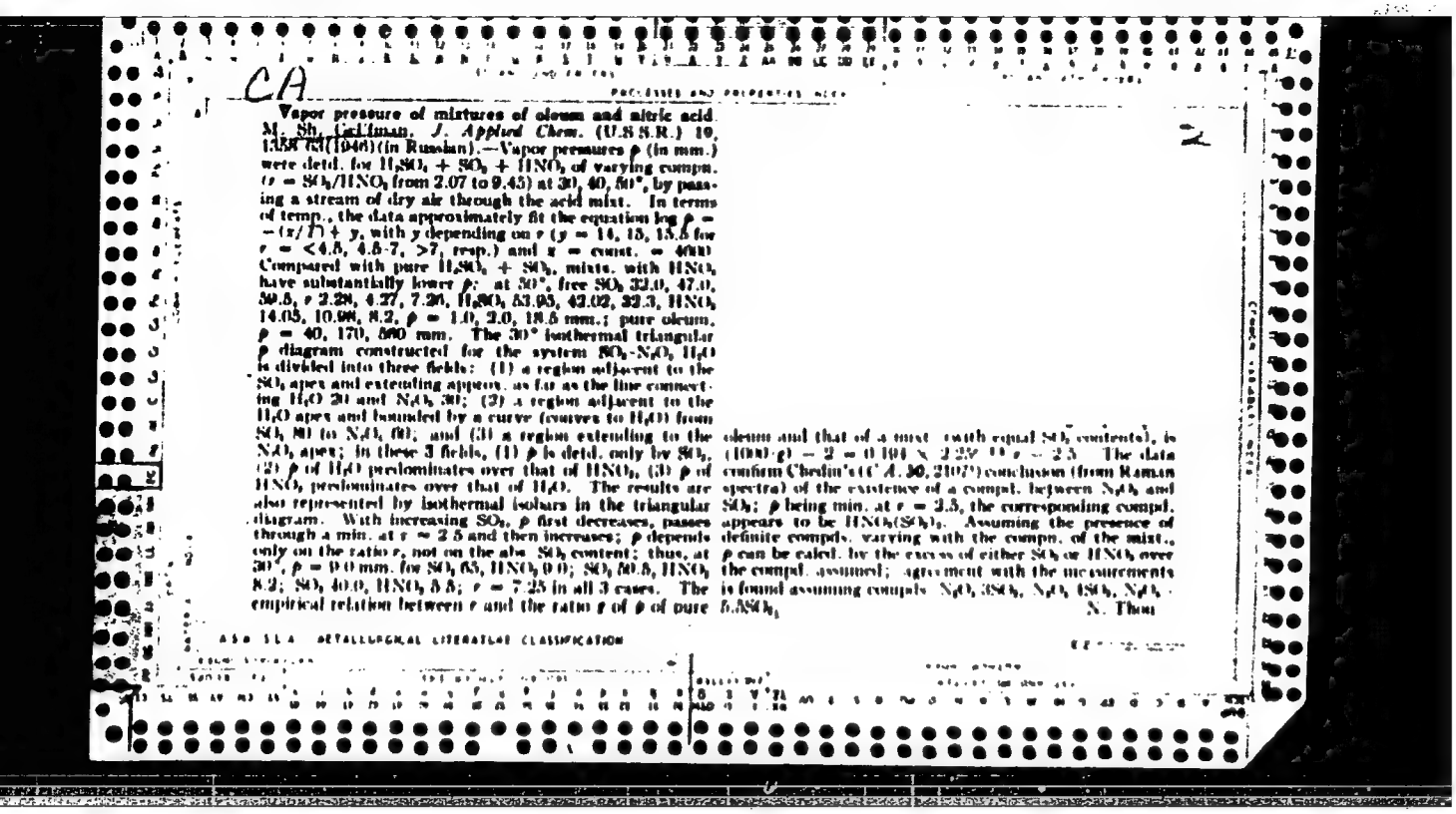
ACC NR: AP6009488

of chlorine ions by ammonia molecules leads to a decrease in the polymerization rate. The catalytic activity of bromine derivatives also decreases with an increasing accumulation of ammonia molecules in the inner sphere of the complex. Comparison of the catalytic effect of the halides of rhodium shows that the chlorides and the bromides of rhodium have almost identical catalytic ability and stereospecificity. The iodide is inactive at 50°, while in its presence at 70° there takes place a polymerization process of the free radical type. With the presence of three ammonia molecules in the inner sphere of the iodide the polymerization proceeds by a coordination-ionic mechanism. Results also show that the stereospecific polymerization of butadiene in the presence of the Rh^{3+} complexes studied leads to the formation of trans-1,4-polybutadiene, regardless of the number and nature of the bonds. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07/ SUBM DATE: 12Jul65/ ORIG REF: 003/ OTH REF: 005

Card 2/2



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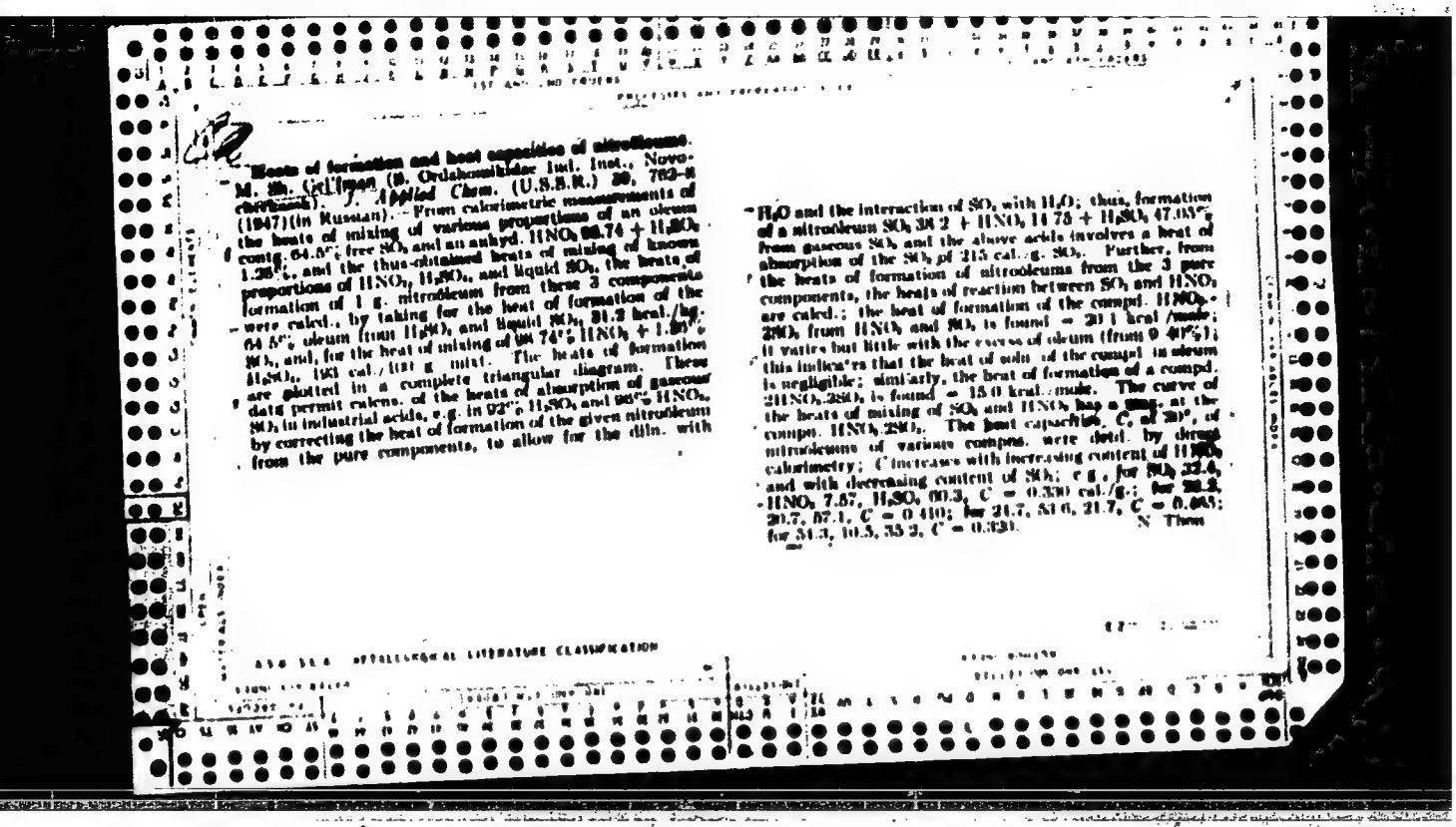
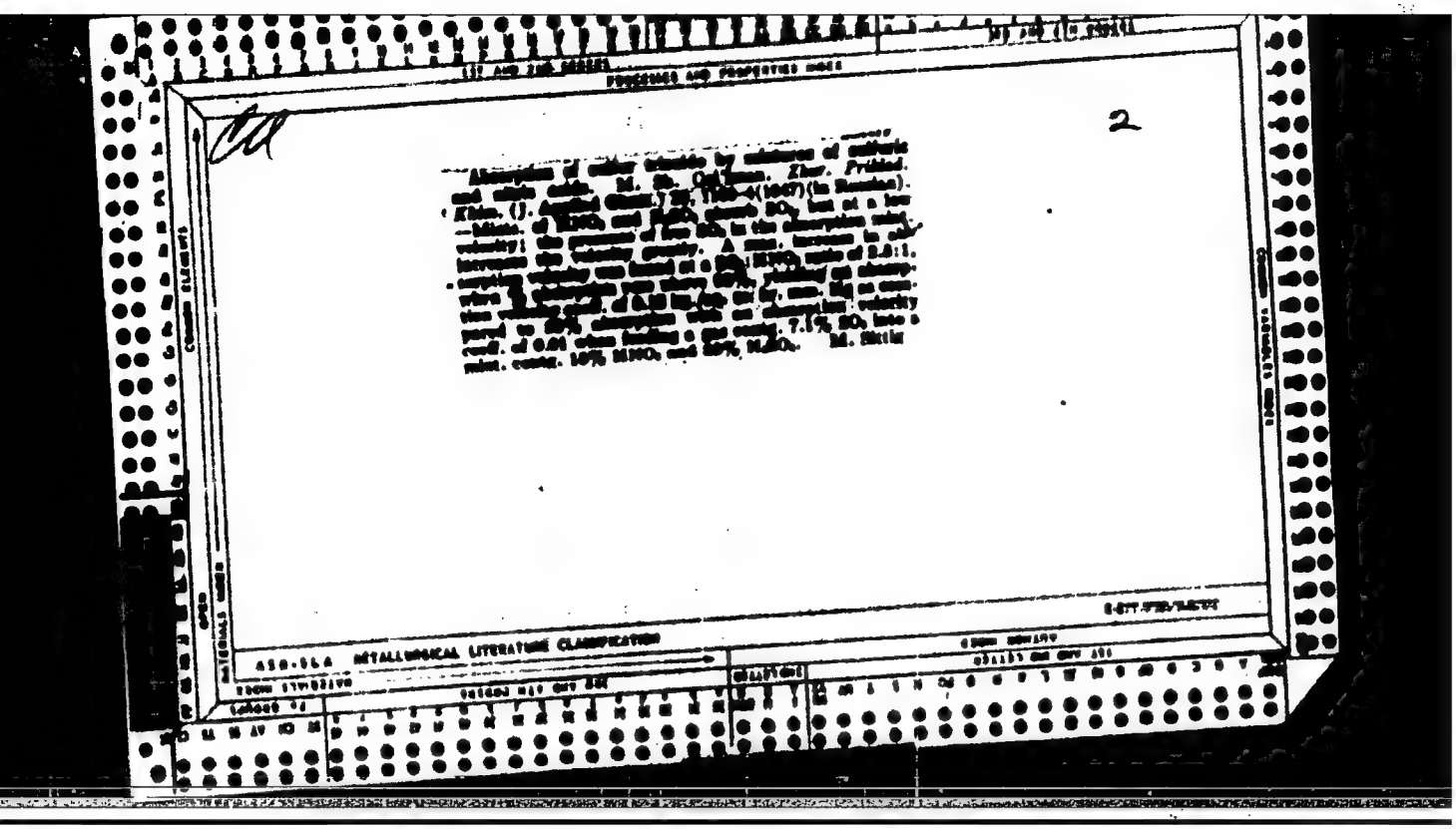
Vapor pressure of mixtures of oleum and nitric acid. M. Sh. Lel'man. *J. Applied Chem.* (U.S.S.R.) 19, 1358-68(1946)(in Russian).—Vapor pressures p (in mm.) were detd. for $H_2SO_4 + SO_3 + HNO_3$ of varying compn. ($r = SO_3/HNO_3$ from 2.07 to 9.45) at 30, 40, 50°, by passing a stream of dry air through the acid mixt. In terms of temp., the data approximately fit the equation $\log p = -(x/T) + y$, with y depending on r ($y = 14, 15, 15.5$ for $r = <4.5, 4.5\text{-}7, >7$, resp.) and $x = \text{const.} = 4000$. Compared with pure $H_2SO_4 + SO_3$ mixts. with HNO_3 have substantially lower p; at 50°, free SO_3 32.0, 47.0, 59.5, r 2.28, 4.27, 7.20, H_2SO_4 53.95, 42.02, 32.3, HNO_3 14.05, 10.98, 8.2, $p = 1.0, 2.0, 18.5$ mm.; pure oleum, $p = 40, 170, 500$ mm. The 30° isothermal triangular p diagram constructed for the system SO_3-N_2O_5-H_2O is divided into three fields: (1) a region adjacent to the SO_3 apex and extending appreciably as far as the line connecting H_2O 20 and N_2O_5 30; (2) a region adjacent to the H_2O apex and bounded by a curve (convex to H_2O) from SO_3 80 to N_2O_5 60; and (3) a region extending to the N_2O_5 apex; in these 3 fields, (1) p is detd. only by SO_3, (2) p of H_2O predominates over that of HNO_3, (3) p of HNO_3 predominates over that of H_2O. The results are also represented by isothermal isobars in the triangular diagram. With increasing SO_3, p first decreases, passes through a min. at $r = 2.5$ and then increases; p depends only on the ratio r, not on the abs. SO_3 content; thus, at 30°, $p = 9.0$ mm. for SO_3 65, HNO_3 9.0; SO_3 50.8, HNO_3 8.2; SO_3 40.0, HNO_3 5.8; $r = 7.25$ in all 3 cases. The empirical relation between r and the ratio g of p of pure oleum and that of a mixt. (with equal SO_3 contents), is $(100)g - 2 = 0.101 \times 2.25^{(10)r - 2.5}$. The data confirm Chelin's (*C. A.* 30, 2107⁹) conclusion (from Raman spectra) of the existence of a compd. between N_2O_5 and SO_3; p being min. at $r = 2.5$, the corresponding compd. appears to be $HNO_3(SO_3)_2$. Assuming the presence of definite compds. varying with the compn. of the mixt., p can be calcd. by the curves of either SO_3 or HNO_3 over the compd. assumed; agreement with the measurements is found assuming compds $N_2O_5 \cdot 3SO_3$, $N_2O_5 \cdot 4SO_3$, $N_2O_5 \cdot 5.5SO_3$.

N. Thon



Heats of formation and heat capacities of nitrotoluenes. M. Sh. Gel'fman (S. Ordzhonikidze Inst. Inst., Novomoskovsk). *J. Applied Chem.* (U.S.S.R.) 20, 782–8 (1947) (in Russian).—From calorimetric measurements of the heats of mixing of various proportions of an oleum contg. 64.5% free SO_3 and an anhyd. HNO_3 98.74 + H_2SO_4 1.26%, and the thus-obtained heats of mixing of known proportions of HNO_3, H_2SO_4, and liquid SO_3, the heats of formation of 1 g. nitrotoluene from these 3 components were calcd., by taking for the heat of formation of the 64.5% oleum (from H_2SO_4) and liquid SO_3 31.2 kcal./kg. SO_3, and, for the heat of mixing of 98.74% HNO_3 + 1.26% H_2SO_4, 163 cal./liter g. mixt. The heats of formation are plotted in a complete triangular diagram. These data permit calcns. of the heats of absorption of gaseous SO_3 in industrial acids, e.g. in 92% H_2SO_4 and 98% HNO_3, by correcting the heat of formation of the given nitrotoluene from the pure components, to allow for the dilu. with H_2O and the interaction of SO_3 with H_2O; thus, formation of a nitrotoluene SO_3 38.2 + HNO_3 14.75 + H_2SO_4 47.05% from gaseous SO_3 and the above acids involves a heat of absorption of the SO_3 of 21.5 cal./g. SO_3. Further, from the heats of formation of nitrotoluenes from the 3 pure components, the heats of reaction between SO_3 and HNO_3 are calcd.; the heat of formation of the compd. $HNO_3 \cdot 2SO_3$ from HNO_3 and SO_3 is found = 20.1 kcal./mole; $2SO_3$ from HNO_3 and SO_3 is found = 20.1 kcal./mole; it varies but little with the excess of oleum (from 9.41%); this indicates that the heat of soln. of the compd. in oleum is negligible; similarly, the heat of formation of a compd. $2HNO_3 \cdot 3SO_3$ is found = 15.0 kcal./mole. The curve of the heats of mixing of SO_3 and HNO_3 has a [illegible] at the compn. $HNO_3 \cdot 2SO_3$. The heat capacities, C, at 20°, of nitrotoluenes of various compns. were detd. by direct calorimetry; C increases with increasing content of HNO_3 and with decreasing content of SO_3; e.g., for SO_3 22.6, HNO_3 7.87, H_2SO_4 69.3, C = 0.330 cal./g.; for 20.2, 20.7, 57.1, C = 0.410; for 21.7, 51.6, 21.7, C = 0.465; for 51.3, 10.5, 33.2, C = 0.331. N. Thon



GEL'FMAN, M. SH.

Gel'fman, M. Sh. - "The balance in the process of obtaining nitrocellulose", Trudy, Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 31-50, - Bibliog; 7 items.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

GEL'FMAN, M. SH.

Gel'fman, M. Sh. - "The use of the express method in determining the SO_3 in a mixture of oleum and nitric acid", Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 51-54.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

GEL'FMAN, M. SH.

Gel'fman, M. Sh. - "On the nature of sulfur-nitrogen mixtures", Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 55-61, - Bibliog: 22 items.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

GEL'FMAN, M. SH.

Gel'fman, M. Sh. - "The acid balance in the preparation of trinitrotoluol", Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XIX, 1948, p. 139-29 (sic).

SO; U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

GEL'FMAN, M. SH. PA 64T2

USSR/Chemistry - Nitro Compounds Jan 1948
Chemistry - Freezing Points

"Freezing Temperatures for Nitro Oleums," M. Sh. Gel'fman, 5½ pp

"Zhur Prik Khim" Vol XXI, No 1

Determination of freezing temperatures made it possible to determine component ratios most suited for operations. Tests conducted to explain observed conditions of freezing temperatures. Submitted 3 Dec 1946.

[redacted] 64T2

PA 11/49T29

USSR/Chemistry - Nitro Compounds, Sulfuro Aug 48
Chemistry - Affinity

"Calculation of the Amount of Chemical Affinity During the Formation of Sulfuronitro Compounds," M. Sh. Gel'fman, Chair of Tech of Inorg Substances, Novocherkasskiy Ind Inst, 6½ pp

"Zhur Prikład Khimii" Vol XXI, No 8

Calculates values of chemical affinity (alteration of free energy) during formation of compounds of HNO_3 with SO_3 and H_2SO_4. Constructs graph of differential work from values of Ap obtained. Finds integral work values by planimeter method and by Nernst's Rule.

11/49T29

USSR/Chemistry - Nitro Compounds, Sulfuro Aug 48
(Contd)

Results confirm view that SO_3-HNO_3 compounds are more stable than H_2SO_4-HNO_3 compounds. Submitted 1 Oct 47.

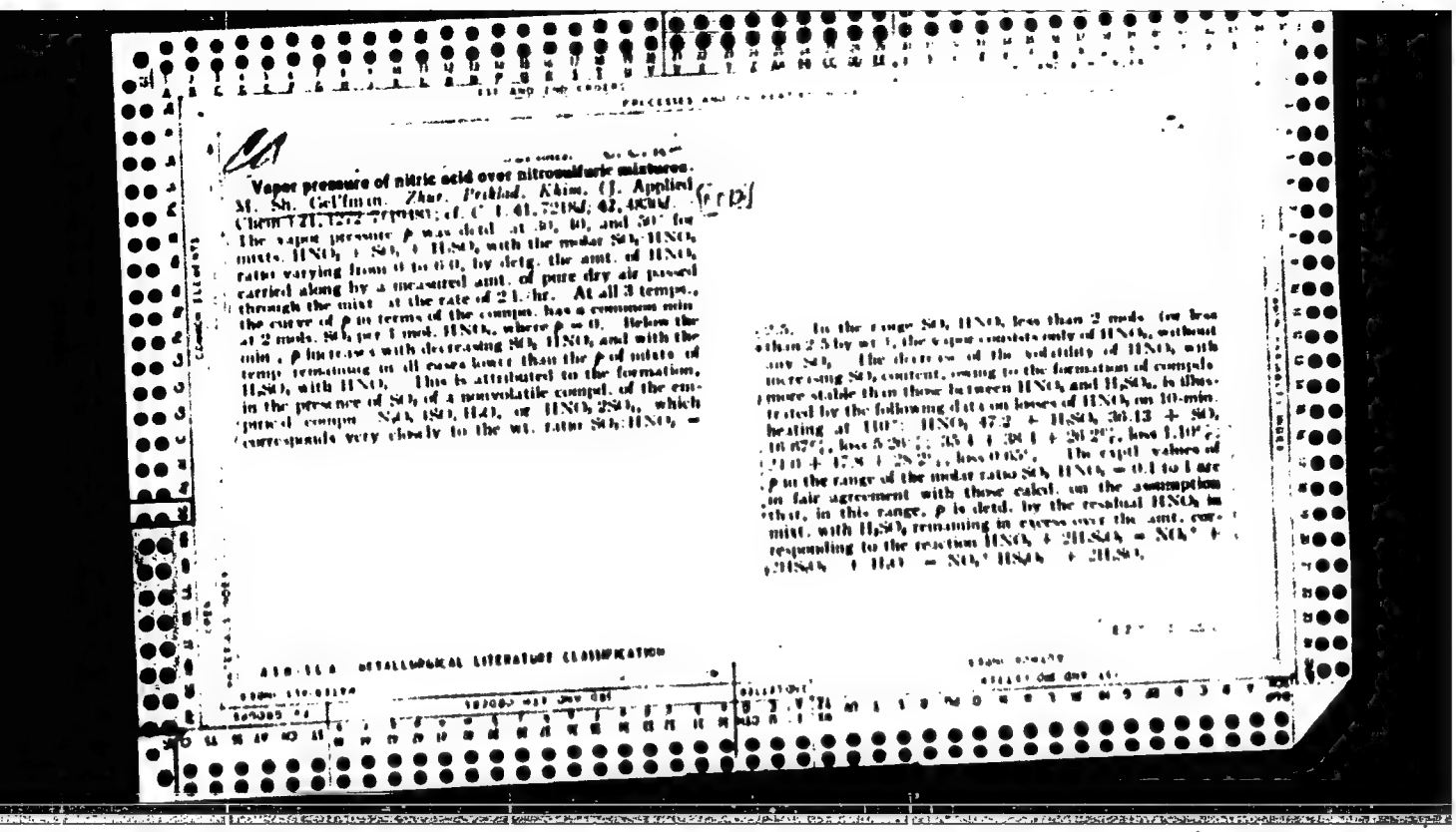
11/49T29

CH

2

Investigation of the composition of acid sulfates by the heats of mixing. M. Kh. Gel'fman. *Khar. Prikhod. Khim.* (J. Applied Chem.) 11, [No. 11] 1169(1938).—(1) From data of heats of formation of aqueous from liquid SO_3 and H_2O, the integral heats of formation of $H_2SO_4.nSO_3$, for n = 0.183, 0.347, 0.645, 0.980, 1.410, 2.46, 4.95, 8.56, were calcd. to be 855, 1140, 2180, 2880, 4850, 6250, 9100, 9880 cal., or 480, 790, 1205, 1620, 1910, 1830, 1825, 1240 cal./mole mist. From the plot of the differential heats, the heat effects accompanying consecutive additn. of 1 mole SO_3 to $H_2SO_4.nSO_3$, for n = 0, 1, 2, 3, and 4, are 2620, 1880, 1380, 1290, and 820 cal. The plot of the heat of mixing per 1 mole of mist., against the mol. % content of SO_3 in H_2SO_4 + SO_3, shows discontinuities, indicating compd. formation, at the compns. $2H_2SO_4.SO_3$, $H_2SO_4.SO_3$, and $2H_2SO_4.SO_3$. The 2nd of these compds. is known as $H_2S_2O_7$; the existence of the 3rd is confirmed by a max. of the melting curve of the system. The heats of formation calcd. from the plot for these 3 compds. are, resp., 2080, 2825, and 2200 cal./mole SO_3, or 1080, 2200, and 2200 cal./mole H_2SO_4. If, from the heat of formation, 2200, of $2H_2SO_4.SO_3$ = $H_2SO_4.3SO_3$, the heat of addn., 2825, of the 1st mole of SO_3 is deducted, the av. heat per 1 mole of addnl. SO_3 is 1850 cal., i.e. substantially lower than the heat of formation of $H_2S_2O_7$. (2) From data of Dahmen (*C.A.* 30, 6797) for the system H_2SO_4–HNO_3, the integral heats of mixing for the compns. $H_2SO_4.nHNO_3$, n = 0.0818, 0.0469, 0.088, 0.089, 0.14, 0.222, 0.46, 0.888, 1.28, 1.84, 2.88, 4.5, 10.0, 21.2, are calcd. to be 220, 435, 600, 940, 1140, 1480, 1885, 2010, 2020, 2040, 3440, 4430, 5880, 5200 cal., or 250, 415, 533, 827, 975, 1200, 1260, 1260, 1175, 1120, 975, 805, 538, 311 cal./mole mist. Heats of addn. of one more mole HNO_3 to $H_2SO_4.nHNO_3$, for n = 0, 1, 2, and 3, are 2600, 700, 640, 440 cal. From discontinuities of the plot of the heat of mixing per mole of mist., against the mol. % content of HNO_3, the compds. are $2H_2SO_4.HNO_3$, $H_2SO_4.HNO_3$, $H_2SO_4.2HNO_3$, and $2H_2SO_4.3HNO_3$, with the heats of formation 5410, 6410, 2642, and 827 cal./mole HNO_3, or 935, 1420, 2585, 3917 cal./mole H_2SO_4. Only the equimol. compd. has so far been mentioned in the literature (Hantzsch, *C.A.* 19, 2312). The other compds. are evidently unstable. (3) From data of O. (*C.A.* 43, 8508a) for the system HNO_3–SO_3, the integral heats of mixing for compns. $SO_3.nHNO_3$, n = 0.042, 0.118, 0.220, 0.213, 0.433, 0.806, 0.888, 2.00, 5.02, 9.60, are calcd. to be 3040, 4430, 5810, 6900, 8810, 9555, 9960, 11,500, 11,700, 12,180 cal., or 2920, 3960, 4710, 5600, 6720, 5700, 5260, 2660, 1920, 1135 cal./mole mist., and, from curves of the differential heats, the heats of addn. of one more mole of HNO_3 to $SO_3.nHNO_3$, for n = 0, 1, 2, 3, and 4, are 10,100, 560, 600, 310, and 180 cal., resp. The heats of addn. of further moles of HNO_3 to $SO_3.HNO_3$ are very low as compared with the heat of addn. of the 1st mole of HNO_3 to SO_3. Not so, however, when further moles of SO_3 are added to $HNO_3.nSO_3$; for n = 0, 1, 2, 3, and 4, the heats are 10,500, 7000, 4700, 2200, and 2800 cal., i.e., in this case, there is only a slow decrease of the heat effect on addn. of one more mole SO_3. From the discontinuities of the plot of the heat of mixing against the mol. % content of HNO_3, the compds. in the system are $HNO_3.18SO_3$, $HNO_3.2SO_3$, and $3HNO_3.8O_3$, with the heats of formation 79,200, 18,825, and 3670 cal./mole HNO_3, or 9100, 9412, and 11,012 cal./mole SO_3. Only the 2nd of these compds. was so far obtained in the cryst. state, and found to have a very low vapor pressure.

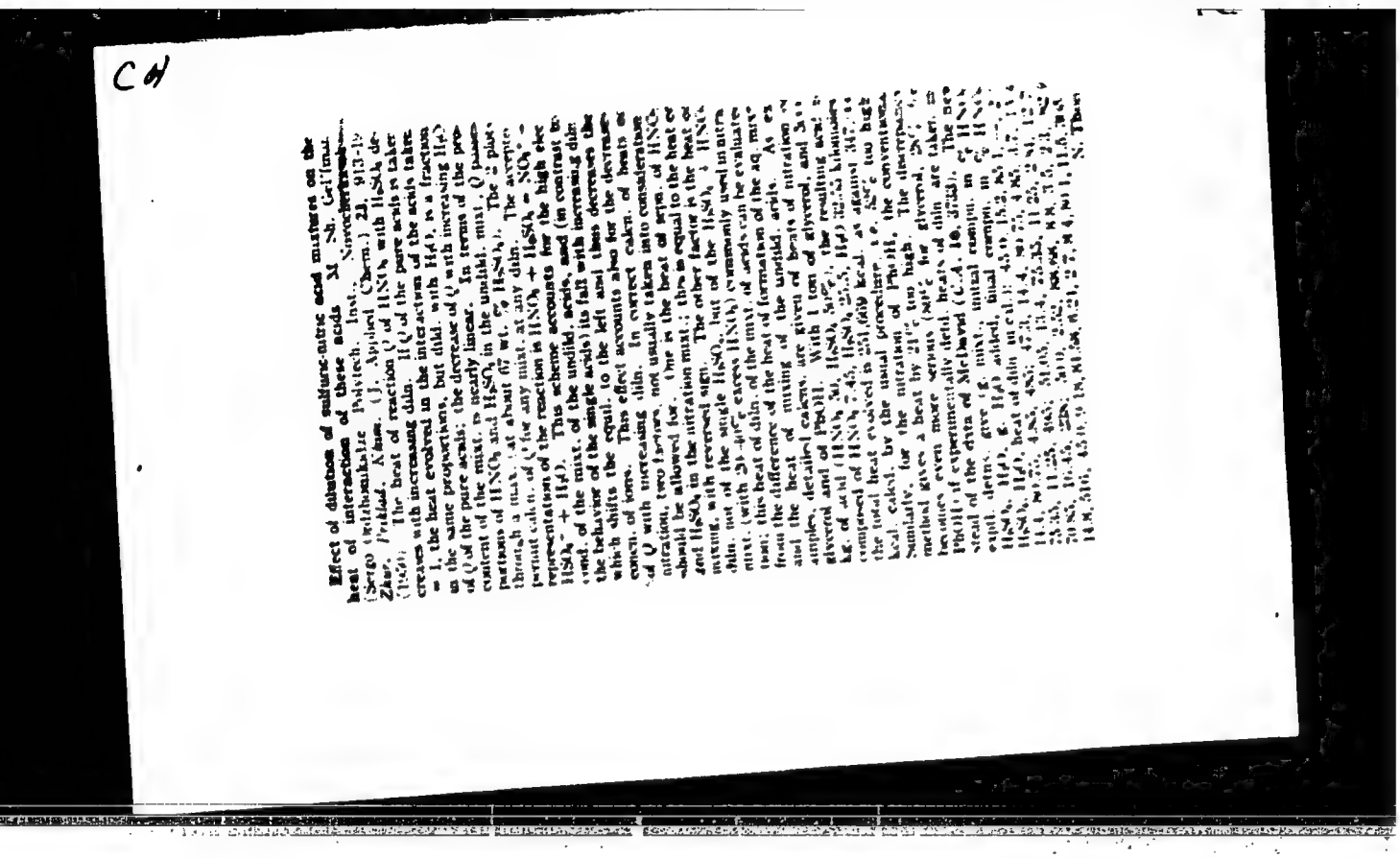
N. Thon



Vapor pressure of nitric acid over nitrosulfuric mixtures.

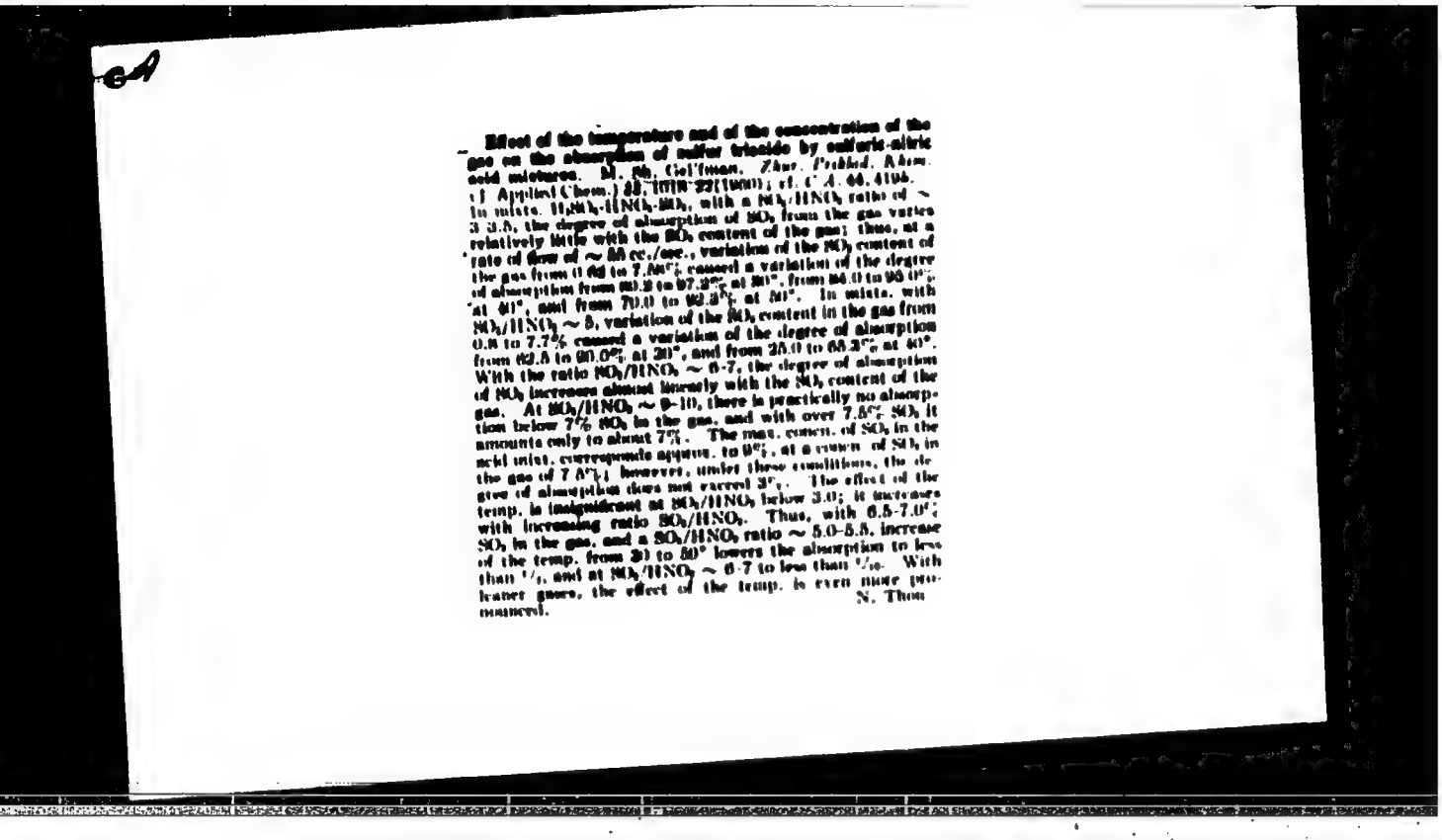
M. Sh. Gel'fman. *Zhur. Prikład. Khim.* (J. Applied Chem.) 21, 1272-7(1948); cf. C. 1. 41, 7218d; 42, 4864d. (in Russ.)

The vapor pressure p was detd. at 30°, 40°, and 50° for mixts. $HNO_3 + SO_3 + H_2SO_4$, with the molar SO_3:HNO_3 ratio varying from 0 to 6.0, by detg. the amt. of HNO_3 carried along by a measured amt. of pure dry air passed through the mixt. at the rate of 2 l./hr. At all 3 temps. the curve of p in terms of the compn. has a common min. at 2 mols. SO_3 per 1 mol. HNO_3, where $p = 0$. Below the min., p increases with decreasing SO_3:HNO_3, and with the temp. remaining in all cases lower than the p of nitric of the same concn. in the presence of SO_3 of a nonvolatile compd. of the empirical compn. $N_2S_3H_2O_{11}$, or $HNO_3 \cdot 2SO_3$, which corresponds very closely to the wt. ratio SO_3:HNO_3 = 2.5. In the range SO_3:HNO_3 less than 2 mols. (or less than 2.5 by wt.), the vapor consists only of HNO_3, without any SO_3. The decrease of the volatility of HNO_3 with increasing SO_3 content, owing to the formation of complexes more stable than those between HNO_3 and H_2SO_4, is illustrated by the following data on losses of HNO_3 on 10-min. heating at 110°: HNO_3 47.2 + H_2SO_4 36.13 + SO_3 16.67%, loss 5.26%; 35.4 + 39.1 + 25.2%, loss 1.1%; 21.0 + 17.8 + 29.2%, loss 0.05%. The expil. values of p in the range of the molar ratio SO_3:HNO_3 = 0.1 to 1 are in fair agreement with those calcd. on the assumption that, in this range, p is detd. by the residual HNO_3 in mixt. with H_2SO_4 remaining in excess over the amt. corresponding to the reaction $HNO_3 + 2H_2SO_4 = NO_2^+ + 2HSO_4^- + H_3O^+ = NO_2^+ HSO_4^- + 2H_2SO_4$.

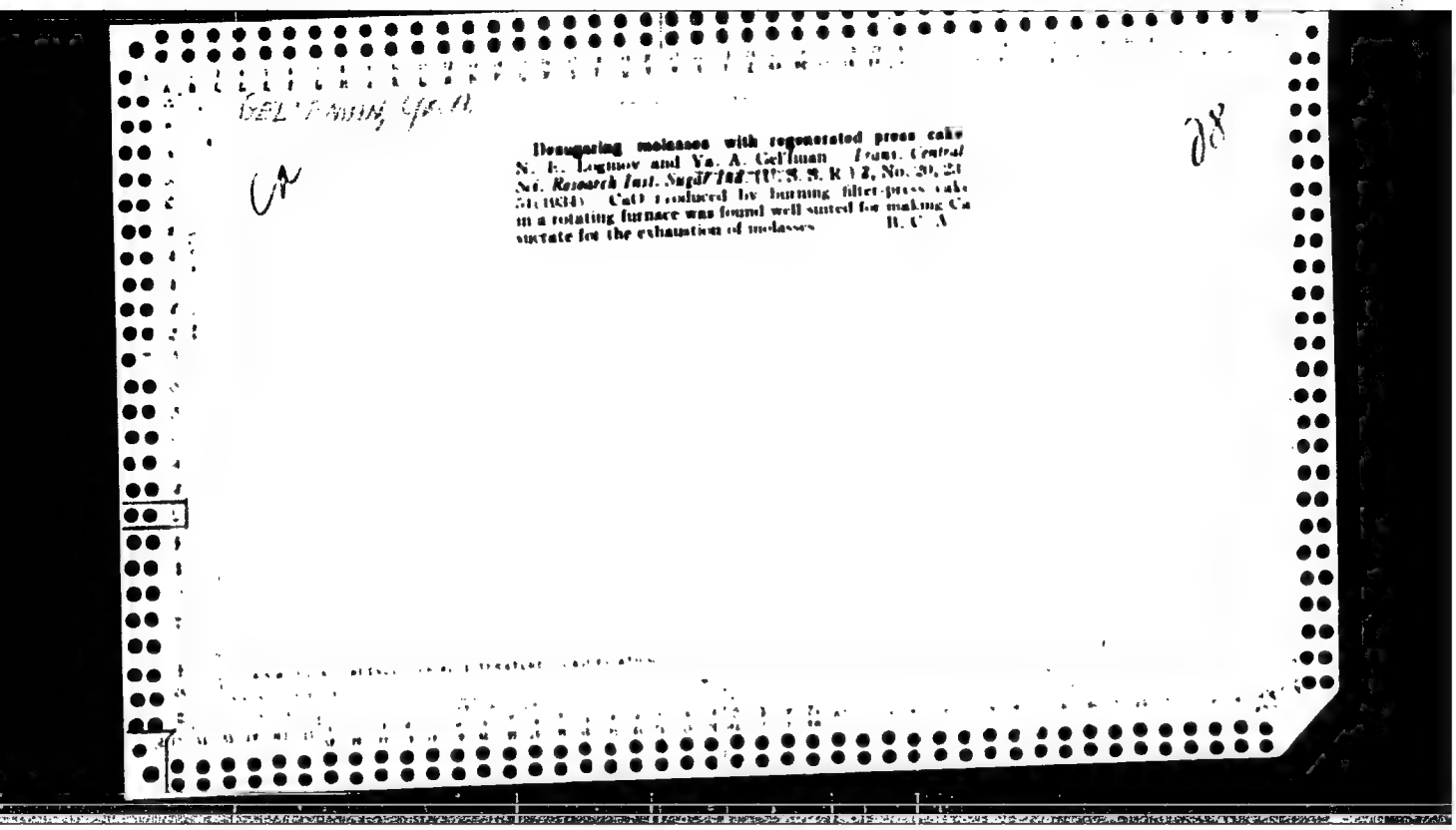


CH

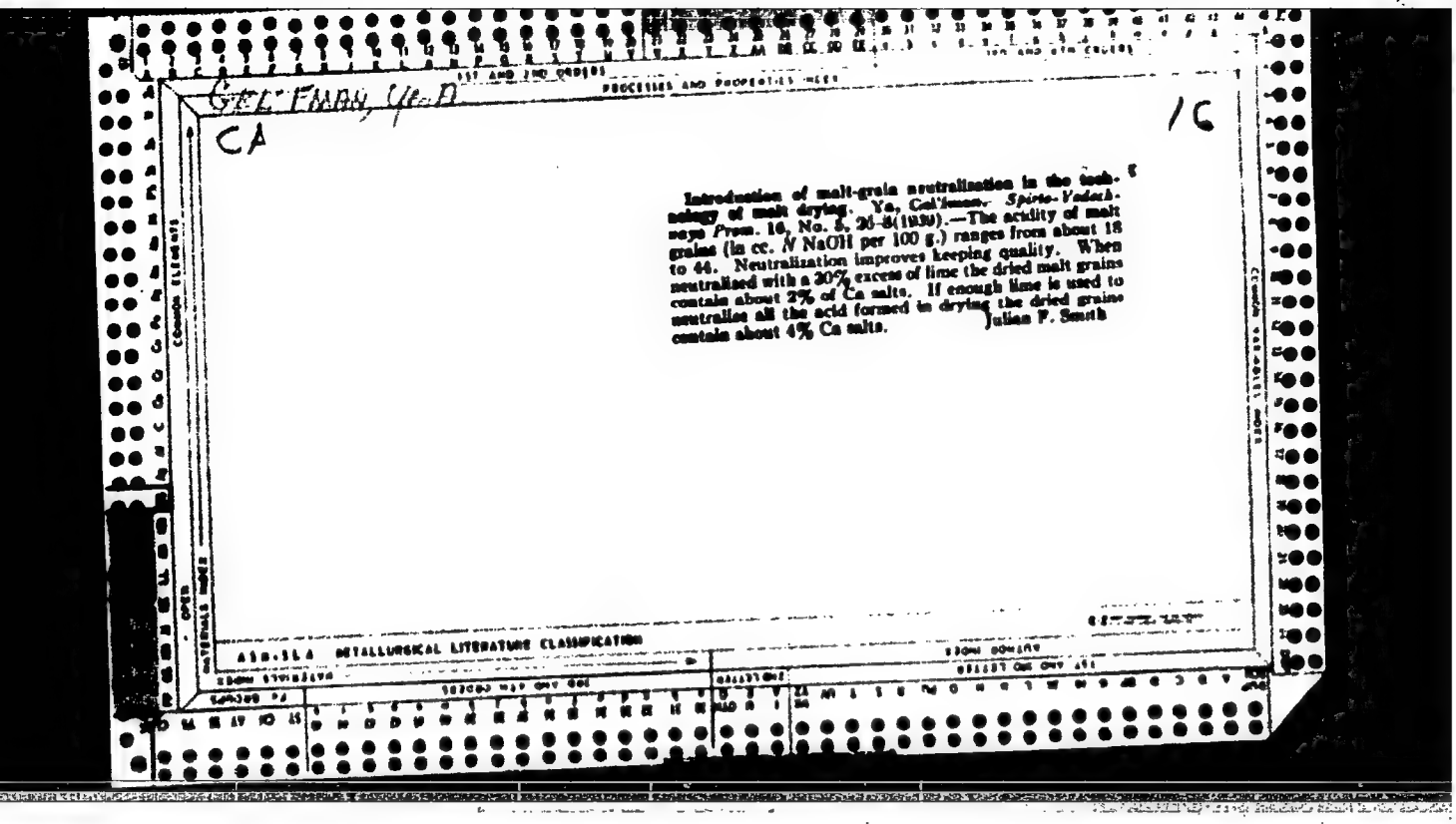
Effect of dilution of sulfuric-nitric acid mixtures on the heat of interaction of these acids
M. Gal'perin
Inst. Novocherkassk
Zhur. Prikladi. Khim. (J. Applied Chem.) 23, 913-19 (1950) (Russian)
The heat of reaction (Q) of HNO3 with H2SO4 decreases with increasing dilution. If Q of the pure acids is taken = 1, the heat evolved in the interaction of H2O, as a fraction of Q of the pure acids, the decrease of Q with increasing H2O content of the mixt. is nearly linear. In terms of the proportions of HNO3 and H2SO4 in the undild. mixt., Q passes through a max. at about 67 wt. % H2SO4. The accepted calcn. of Q for any mixt. at any dilm. is based on the representation of the reaction as HNO3 + H2SO4 + xH2O = NO2 + H2SO4 + (x + 1/2)H2O. This scheme accounts for the high Q values of the undild. acids, and (in contrast to the behavior of the single acids) its fall with increasing dilm. which shifts the equil. to the left and thus decreases the concn. of ions. This effect accounts also for the decrease of Q with increasing dilm. In correct calcns. of heats of nitration, two factors not usually taken into consideration should be allowed for. One is the heat of soln. of HNO3 and H2SO4 in the nitration mixt.; this is equal to the heat of dilm. of the single acids to the concn. of the mixt. The other factor is the heat of soln. of the single H2SO4, but of the HNO3 + H2SO4 mixt. with reversed sign. The latter is commonly used in nitration calcns. (with 3% excess HNO3) whereas the evaluation of the heat of dilm. of the mixt. of acids can be evaluated from the difference of the heat of formation of the aq. mixt. and the heat of mixing of the undild. acids. As an example, detailed calcns. are given of heats of nitration of diluted and of pyrosulfuric acids. With 1 ton of dinitrated product, the resulting acid is of the composition 1.45 H2SO4, 0.55 HNO3, 0.45 H2O. Its dilution to 1.45 H2SO4, 0.55 HNO3, 1.45 H2O (60% acid) requires as against too high the total heat evolved in the nitration of the mononitrated product, the corrected heat calcd. by the usual procedure is 6% too low. Similarly, for the nitration of phenol, the discrepancy is 8% too high. The discrepancies are even more severe (up to 20%) for the nitration of chlorobenzene. The data are based on the heat of dilm. of pyrosulfuric acid, which is calcd. from the data of Mellor and Russell (C.A. 16, 1913) and of Berthelot (Ann. chim. phys. [6] 29, 274 (1893)). The latter's data are, however, not quite accurate. Thus, the heat of dilm. of 1 mol. of 100% H2SO4 with 1 mol. of H2O is given as 17.9 kcal., whereas the correct value is 17.8 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 2 mols. of H2O is given as 24.9 kcal., whereas the correct value is 24.8 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 3 mols. of H2O is given as 28.9 kcal., whereas the correct value is 28.8 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 4 mols. of H2O is given as 31.2 kcal., whereas the correct value is 31.1 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 5 mols. of H2O is given as 32.4 kcal., whereas the correct value is 32.3 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 6 mols. of H2O is given as 33.2 kcal., whereas the correct value is 33.1 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 7 mols. of H2O is given as 33.7 kcal., whereas the correct value is 33.6 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 8 mols. of H2O is given as 34.1 kcal., whereas the correct value is 34.0 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 9 mols. of H2O is given as 34.4 kcal., whereas the correct value is 34.3 kcal. The heat of dilm. of 1 mol. of 100% H2SO4 with 10 mols. of H2O is given as 34.6 kcal., whereas the correct value is 34.5 kcal.



Effect of the temperature and of the concentration of the gas on the absorption of sulfur trioxide by sulfuric-nitric acid mixtures. M. Sh. Ciel'man. *Zhur. Prikhd. Khim.* (J. Applied Chem.) 22, 1019-22(1949); cf. C. A. 44, 4105. In nitrate, H_2SO_4-HNO_3-SO_3, with a SO_3/HNO_3 ratio of ~ 3-3.5, the degree of absorption of SO_3 from the gas varies relatively little with the SO_3 content of the gas; thus, at a rate of flow of ~ 50 cc./sec., variation of the SO_3 content of the gas from 0.62 to 7.80% caused a variation of the degree of absorption from 93.2 to 97.2% at 20°, from 84.0 to 95.0% at 40°, and from 70.0 to 92.3% at 60°. In nitrate, with SO_3/HNO_3 ~ 5, variation of the SO_3 content in the gas from 0.8 to 7.7% caused a variation of the degree of absorption from 62.5 to 90.0% at 20°, and from 25.0 to 68.2% at 60°. With the ratio SO_3/HNO_3 ~ 6-7, the degree of absorption of SO_3 increases almost linearly with the SO_3 content of the gas. At SO_3/HNO_3 ~ 9-10, there is practically no absorption below 7% SO_3 in the gas, and with over 7.5% SO_3 it amounts only to about 7%. The max. concn. of SO_3 in the acid mist, corresponds approx. to 0%, at a concn. of SO_3 in the gas of 7.5%; however, under these conditions, the degree of absorption does not exceed 3%. The effect of the temp. is insignificant at SO_3/HNO_3 below 3.0; it increases with increasing ratio SO_3/HNO_3. Thus, with 6.5-7.0% SO_3 in the gas, and a SO_3/HNO_3 ratio ~ 5.0-5.5, increase of the temp. from 20 to 50° lowers the absorption to less than 1%, and at SO_3/HNO_3 ~ 6-7 to less than 2%. With lower concn. of the effect of the temp. is even more pronounced. N. Thom



Desugaring molasses with regenerated press cake
N. E. Lagunov and Ya. A. Gel'fman *Trans. Central Sci. Research Inst. Sugar Ind.* (U.S.S.R.) 2, No. 20, 21-51(1934). CaO produced by burning filter-press cake in a rotating furnace was found well suited for making Ca sucrate for the exhaustion of molasses. B. C. A.



GEL Fmby, Ye-D

CA

1C

Introduction of malt-grain neutralization in the technology of malt drying. Ya. Gel'fman. *Spirto-Vodochnaya Prom.* 16, No. 5, 20–8(1939).—The acidity of malt grains (in cc. *N* NaOH per 100 g.) ranges from about 18 to 44. Neutralization improves keeping quality. When neutralized with a 20% excess of lime the dried malt grains contain about 2% of Ca salts. If enough lime is used to neutralize all the acid formed in drying the dried grains contain about 4% Ca salts. Julian F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GEL'FMAN, YA. A.

"Sugar Extraction From Molasses Using Lime Regenerated Out of Filter-Press Sludge." Sub 24 Dec 47, Moscow Technological Inst of the Food Industry

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

GEL'FMAN, Ya. A.

USSR

Gel'fman, Ya. A.: Neitralizatsiya i ochistka gidrolizatov i sulfitnykh shchelokov (Neutralization and Purifying of Hydrolyzates and Sulfite Liquors). Moscow: Goslesbumizdat. 1953. 90 pp.

GEL'FMAN, Ya. A., kand. tekhn. nauk; IVANOVA, N. I., inzh.; SHISHKINA, I. V.

Manufacturing polyvinyl chloride finishing and decorative films. Sbor. trud. VNIINSM no.5:3-24 '61. (MIRA 15:10)

(Vinyl compound polymers)

GEL'FMAN, Ya.A.; SHISHKINA, I.V.; IVANOVA, N.N.

Extending the life of finishing and ornamental polyvinyl chloride films. Plast. massy no.12:69-70 '62. (MIRA 16:1)
(Plastic films) (Vinyl compound polymers)

GERSHKOVICH, B.M., INZH.; GEL'FMAN, Ya.A., kand.tekhn., nauk

Point molds which can be detached from the gate for casting polystyrene tiles. Stori.mat. 9 no.3:27-28 Mr '63. (MIRA 16:4)
(Plastics—Molding)

GEL'FMAN, Ya.A., kand. tekhn. nauk; SHISHKINA, I.V., inzh.

Coloring matter for finishing and decorative polyvinyl chloride films. Sbor. trud. VNIINSM no.7:29-34 '63.

Finishing polyvinyl chloride films with a layer of glue. Ibid.: 35-40 '63. (MIRA 17:11)

L 08793-67 EWT(m)/EWP(j) IJP(c) WW/RM
ACC NR: AP6030843 (A, N) SOURCE CODE: UR/0191/66/000/009/0010/0011

AUTHOR: Gel'fman, Ya. A.; Zemlyanskiy, N. N.; Lauris, I. V.; Syutkina, O. P.; Kuskova, V. P.; Panov, Ye. M.

ORG: none

TITLE: Stabilization of polyvinylchloride by organotinoxanes

SOURCE: Plasticheskiye massy, no. 9, 1966, 10-11

TOPIC TAGS: vinyl chloride, polymer, tin compound, organotin compound, organometallic compound, solid mechanical property, heat resistance

ABSTRACT: The effect of organotinoxane-type additives [$CH_3COO(C_4H_9)_2SnO$, $CH_3COO[(C_4H_9)_2SnO]_4OCCH_3$, and $[C_{11}H_{23}COO(C_4H_9)_2Sn]_2O$] on the thermal stability of polyvinylchloride was investigated. The aging characteristics of the stabilized PVC was tested according to GOST 10226-62 and the decomposition temperature was tested according to the GOST5960-51 standard. It was found that the PVC stabilized with organotinoxanes had a thermal stability comparable to that of PVC stabilized with conventional R_2PbX_2 stabilizers. It was also found that the organotinoxane stabilizer based on acetic acid was as effective as that based on lauric acid. Orig. art. has: 2 tables.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 004

Card 1/1 net UDC: 678.743.22:678.048.9

GEL'FMAN, Ya.I., inzhener

Making glued beams and girders with simplified equipment. Rats. i izobr. predl. v stroi. no.101:23-27 '55. (MLRA 8:10)
(Girders) (Gluing)

27(0)

AUTHORS: ~~Gel'fman, Ye., Teacher of Mathematics, Belousovo settlement,~~ SOV/29-58-12-11/25
Kaluzhskaya oblast', Znamenskaya, L., Candidate of Philosophical Sciences

TITLE: Power of Imagination (Sila voobrazheniya)

PERIODICAL: Tekhnika molodezhi, 1958, Nr 12, pp 16-19 (USSR)

ABSTRACT: In the preface to the article by Ye. Gel'fman L. Znamenskaya writes: All psychical processes are closely connected and dependent on one another. Actions of will cannot be carried out without first imagining an aim and the means for its attainment. In the mental activity of man, the setting up of tasks and problems is impossible without creative imagination. The following article by Ye. Gel'fman should be of interest for young readers. As the author says, concentrated thinking and a developed imagination are not only a great help in learning, in working and in any profession but they are powers making it possible to see into the future and making people go ahead on the way of progress. One of the most important instruments for developing these powers is arithmetical training. Science leads into a world of endless wonders ever happening in man

Card 1/4

and around him. But to few it is given to comprehend these wonders. The fault for this lies first in superficial and desultory thinking and second in the fact that knowledge is usually conveyed in a dry way. It is up to man himself to educate his thoughts to be able to comprehend, by means of imagination, the variety and abundance of life. Further, the author gives some examples as to how one can imagine astronomical conceptions. He mentions the Pavilion for Amusing Science in the Central Park for Culture and Recreation in Leningrad where an illustrative representation of a million is shown according to a proposal made by Ya. I. Perel'man. The sooner man will be able to imagine astronomical figures the more correct and clear will be his idea of the boundlessness of the universe. Further, he quotes from the psychology of A. I. Ivanov who designates imagination the most important presupposition for creative thinking. Imagination is especially developed with writers, actors, and inventors. With children it may be so strong that they even mistake imagination for reality. Scientists, engineers, and inventors relying wholly on their knowledge are always in advance with their thoughts thus meeting with the new. An example of

strong imagination is given by N. A. Morozov who was imprisoned for 25 years in the fortress of Schluesselburg writing, in spite of it, on the complicated structure of the atom and atomic energy before many other physicists and chemists. The ability of developing one's imagination in a desired direction can be obtained by a special training. Such training is described in the book "Rabota aktera nad soboy" by K. S. Stanislavskiy, founder of the Moscow Artists' Theater. An active, creative intellect is not the privilege of man in higher professions. Of course, disciplined and concentrated thinking is necessary. The author quotes P. M. Yakobson, Docent, who asserts that certain emotions may grant to man unexpected powers and possibilities. This can be explained by the fact that there are energies hidden in man which are brought out in exceptional cases. Leytes, the Soviet psychologist, says the same with other words: Talent is not the blessing of few select personalities. On the contrary, talent is a general human property. Man should endeavor to avoid distracted thoughts. Guided thoughts facilitate mastering the difficulties of life, learning, and work. Scientists stress the importance of concentrated thinking. Each of them says

in his own way that genius is nothing but permanent concentration. There are 7 figures.

GEL'FON, A. M.

"Anatomical Analysis of Operational Methods for Petrositis." Sub 2 Dec 47, Central Inst for the Advanced Training of Physicians

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr. 55

GEL'FON, I. A.

Oct 48

USSR/Medicine - Silicosis
Medicine - Blood, Chemistry

"Some Changes in the Blood Due to Silocosis," Prof. S. M. Genkin, I. Gel'Fon N. Migina, A. Raghevskaya, A. Shilova, Clinic, Inst of Labor Hygiene and Occupational Diseases, Acad Med Sci USSR, 7 pp

Klin Med, Vol 26, No 10

Estimations of hemoglobin, leukocyte count, and differential count in silicosis without complications remain within normal limits. They do not undergo alterations corresponding to progress of the disease. In silico-tuberculosis the percentage of cases with leukocytosis shifts the differential count to left, lymphopenia and eosinopenia become more marked with transition from early to late stages. Erythrocyte sedimentation rate increase in both silico-tuberculosis and silicosis. Albumen content in serum is normal. Viscosity increases.

PA 31/39T37

Gel'fon, I. A.

The histamine content of blood in silicosis and pneumosclerosis due to chemical irritant. I. A. Gel'fon (Inst. Ind. Hyg. and Occupational Diseases, Acad. Med. Sci. U.S.S.R., Moscow). *Klin. Med.* (U.S.S.R.) 31, No. 12, 78–6(1953).—In cases of silicosis the histamine content ranged from 0.05 to 0.3 γ/cc.; mean value 0.131, in silicotuberculosis 0.04 to 0.340, mean value 0.147, and in pneumosclerosis due to chem. irritants 0.08 to 0.3, mean value 0.148. Histamine increases as the silicosis progresses from the 1st to 3rd stage. However, the histamine increase is not specific for silicosis; it appears as the result of the response of nerve receptors of the lungs to irritants. There was also a parallelism between the A/G ratio and the level of histamine. A low A/G ratio was accompanied by a high histamine value. A. Mirkin

GEL'FON, I.A.

DROGICHINA, E.A.; GEL'FON, I.A.; CHEREPANOVA, G.N.

Therapeutic role of Vitamin B_1 in toxic polyneuritis. Trudy AMN SSSR 31:113-127 '54. (MLRA 7:10)

(Thiamine) (Neuritis, Multiple)

GEL'FON, I.A.; SENKEVICH, M.A.

Histamine content and the activity of histaminase in the blood in silicosis and changes under the influence of some therapeutic methods. Bor'ba s sil. 2:305-312 '55. (MLRA 9:5)

1. Institut gigiyeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR.
(HISTAMINE) (BLOOD--ANALYSIS AND CHEMISTRY)
(LUNGS--DUST DISEASES)

GEL'FON, I.A., Cand Med Sci -- (diss) "Certain biochemical changes in the blood in silicosis and silicotuberculosis (albumine fractions, histamine, action of histaminase and gases of the blood)." Mos, 1958, 10 pp (Acad Med Sci USSR. Inst of Hygiene of Labor and Occupational Diseases) 200 copies (KL, 32-58, 111)

DROGICHINA, E.A., BYALKO, N.K., GEL'KON, I.A., IVANOV, N.I., KAZAKEVICH, M.A. LINEVICH, T.B., OSIPOVA, V.G., STEPANOVA, V.IV. RYZHKOVA, M.N. SOLOV'YEVA, Ye.A., TSEMTEROVA, L.G. (Moskva)

Clinical aspects of initial stages of chronic radiation sickness. Gig.truda i prof.zab. 2 no.2:3-7 Mr-Ap'58 (MIRA 11:6)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(RADIATION SICKNESS)

GEL'FON, I.A.

Cholesterol and uric acid content of the blood in silicosis and silicotuberculosis patients. Gor'ba s sil. 4:122-124 '59.
(MIRA 12:11)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(LUNGS--DUST DISEASES)
(CHOLESTEROL)
(URIC ACID)
(BLOOD--EXAMINATION)

SOLOV'YEVA, L.V.; GEL'FON, I.A.

Some biochemical changes in the blood following chemical sensitization. Vest. derm. i ven. 33 no.2:6-12 Mr-Ap '59. (MIRA 12:7)

1. Iz Instituta gigiyeny truda i profzabolevaniy AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Letavet).
(ALLERGY, blood in,
biochem. blood changes in sensitization by chem. agents (Rus))

GEL'FON, I.A.; SADCHIKOVA, M.N.

Protein fractions and blood histamine under the influence of SHF an HF. Trudy Inst. gig. truda i prof. AMN SSSR no.1: 46-49 '60. (MIRA 16:12)

GEL'FON, I.A.; FEDOROVA, V.I. (Moskva)

Changes in the protein fractions of the blood and histamine under the effect of amorphous and crystalline silicon dioxide; experimental research. Arkh. Pat. 25 no.6:45-52 '63. (MIRA 17:1)

1. Iz patologoanatomicheskoy laboratorii (zav. - prof. P.P. Dvizhkov) i biokhimicheskoy laboratorii (zav. - starshiy nauchnyy sotrudnik I.V. Pavlova) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Letavet) AMN SSSR.

L 26091-66 EWT(m)/EWP(t) IJP(c) JD

ACC NR: AP6015096 SOURCE CODE: UR/0391/66/000/005/0052/0053

AUTHOR: Rozenberg, P. A. (Moscow); Gel'fon, I. A. (Moscow)

ORG: Scientific Research Institute of Industrial Hygiene and Occupational Diseases, Academy of Medical Sciences SSSR (Institut gigiyeny truda i profzabolevaniy AMN SSSR)

TITLE: The effect of UHF therapy on the silicon content in the lungs and bifurcated lymph nodes during experimental silicosis

SOURCE: Gigiyena truda i professional'nyye zabolevaniya, no. 5, 1966, 52-53

TOPIC TAGS: UHF, silicosis, lung, lymph nodes, rat

ABSTRACT: UHF therapy is used to treat silicosis patients not only because it decreases chest pain and relieves shortness of breath, but also because it increases the metabolic rate, activates pulmonary blood circulation, and favorably affects the nervous system. Experiments were conducted to determine whether, in addition to these effects, UHF speeds up the entry of silicon dioxide into the bifurcated lymph nodes, and its subsequent elimination from the body. White rats were exposed to UHF (no field parameters given) after the introduction of 50 mg of silica dust into their tracheae. Experimental results showed a noticeably decreased silicon dioxide content in the lungs and lymph nodes of two groups of animals, those given UHF treatment immediately after introduction of the dust, and those exposed one month later. After two UHF treatments (6 and 8 months after administration of the dust) the

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L 26091-66

ACC NR: AP6015096

silicon dioxide level in the lymph nodes of experimental rats increased, but to a lesser extent than in nontreated rats. Apparently the second UHF treatment promotes elimination of silica dust from the lungs into the bifurcated lymph nodes to a greater extent than one treatment alone. [JS]

SUB CODE: 06/ SUBM DATE: 10Oct63/ ATD PRESS: 4253

Card 2/2

GEL'FON, M.B.; KOLESNIKOV, A.I.

Self-propelled car-washing machinery. Biul.tekh.-ekon.inform. no.2:69-71 '62. (MIRA 15:3)
(Railroads--Cars--Cleaning)

GEL'FOND, A.

Space and mathematics. Av. i kosm. 45 no.9:83-84 '62. (MIRA 15:10)

1. Chlen-korrespondent AN SSSR.

(Space flight) (Mathematics)

GEL'FOND, A.O. (Moscow)

Estimation of the remainder term in the limit theorem for recurrent events. Teor. veroiat. i ee prim. 9 no.2:327-331 '64
(MIRA 17:7)

GEL'FOND, A. O.

O chisle podstanovok, ne peremeshchayushchikh dannogo chisla simvolov,

Izv. Aksots nauchn issled. in-tov, 1928

GEL'FOND, A. O.

Ocherk istorii sovremennogo sostoyaniya teorii transtsendentnykh chisel. Estestv. i marksizm, 1(1930), 33-55.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.
Markushevich, A.I.
Rashevskiy, R.K.
Moscow-Leningrad, 1948

GEL'FOND, A. O.

"Sur une application du calcul des differences finies a l'etude des fonctions entieres, Matem. sb., 36, 173-183, 1930.

GEL'FOND, A. O.

"Sur le theoreme de M. Polya", Atti Reale de l'Acad. des Sciences 10, 569-574, 1931.

GEL'FOND, A. O.

O funktsiyakh, obrashchayushchikhsya v nul' vmeste so vsemi svoimi proizvodnymi v tochke granitsy, Uch. zap. MGU, 2, 2, 25-28, 1932